



ASSOCIATION OF DENTAL LOSS WITH ACUTE INFLAMMATION AND AGING IN HORIZONTAL INCOMPLETELY IMPACTED MOLARS: A STUDY OF ELDERLY SUBJECTS

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ABSTRACT

The elderly are frequently diagnosed with Uncompletely impacted molars are prone to inflammation. Identification of the factors causing acute inflammation in solitary mandibular molars without second molars or without first and second molars was conducted using 150 horizontally incompletely impacted mandibular molars in contact with or not in contact with molars in subjects 40 years of age or older. There were nine third molars with acute inflammation out of 96 contacting second molars, and in 22 of 38 solitary molars not contacting either the second or first molars. There was a significant difference between subjects with isolated third molars and those with contacting third molars in terms of median age (p 0.0001). Incompletely impacted molars on the horizontal because of dental loss, inflammation and aging are more likely to occur.

Key words: Acute inflammation, Aging, Horizontal Incompletely Impacted Molars, Elderly subjects.

INTRODUCTION

It is not uncommon for elderly people without a second molar to experience Third molar impacted horizontally with acute inflammation, especially when it is not in contact with the second molar. As a result of partially impacted teeth, soft tissues can become infected [1,2], and acute inflammation can occur as a consequence of Complications are likely to be caused by factors related to the mandibular third molar, especially the position and angle. A horizontally impacted molar may develop acute inflammation as a result of the absence of periodontium surrounding its crown, as pericoronitis implies. To prevent severe complications from third molars in the elderly, it is important to understand how acute inflammation is expressed. [3] Third molars may still affect periodontal health long after middle age and into retirement. There is a lack of information about isolated impacted molars due to the inability to differentiate third molars from first molars. In most cases, third molars that are completely impacted do not need to be extracted unless they are accompanied by

signs and symptoms. If Exposed crowns of teeth due to periodontitis or tooth removal, or if bone resorption occurs, Problems related to patient quality of life and complications may increase, especially as a patient ages. The exposure of the Third molar crown with horizontal impact could also result in infection. For elderly people, assessing their [4] Recognizing the horizontally impacted third sector is essential to quality of life molars. Chronic inflammation is associated with an increased risk may be helpful for subjects with impacted third molars and decayed second molars. Solitary molars with incompletely impacted horizontal surfaces have little information available. In our study, we attempted to Acute information can be used to predict the future regarding resorption of bone adjacent to adjacent tooth loss. We investigated the differences between incompletely impacted third molars and impacted third molars with second molars in order to identify the factors leading to acute inflammation in horizontally impacted molars without second molars, or

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second and first molars. In spite of the rare incidence of horizontally impacted first or second molars, and patients with incompletely [5] There is a risk associated with impacted third molars of inflammation. This paper presents a review of the Moulds with incompletely impacted horizontal surfaces are more likely to be affected by acute inflammation, the patient ages, and factors influencing acute inflammation, in addition to discussion of its prognostic value.

METHODS

During the initial examination at oral and maxillofacial surgery department, orthopantomographs were performed on 94 teeth of 86 men and 56 teeth of 52 women with horizontally A third molar with incomplete contact or isolation from the second or first molars of the mandible from them with or without acute inflammation for diagnosis and treatment (Table 1). [6] In addition to discomfort, pain, and swelling, they complained about tooth-like material exposed. When a tooth is red, swollen, tender, or discharged pus, as well as trismus and dysphagia, acute inflammation has been diagnosed. With the assistance of an orthopantomograph (SPC-20 mA, 80–84 kVp) and an automatic developing machine, it was confirmed that a horizontally incompletely impacted molar was present. A third molar with incompletely impacted angulation and full bone coverage was horizontal to the second molar. [7] Horizontal lines were drawn at different

heights when the second molars and premolars were lost in order to determine horizontal angulation. Based on the line on a compass, we determined Angle of occlusal plane of third molar. According to Shiller, horizontal angulation was measured on teeth with at least 70° of inclination. An oral surgeon with extensive experience measured radiograms twice. Following a period without reviewing primary data, the second time was performed. A mean value was calculated for measurements. We excluded from our study teeth with an angle less than 69° on either measurement within two measurements. [8] The teeth were divided into three groups; third molars that were in If first and second molars were present, contact between the third molar and the second molar would be present; if the third molar was not present, contact would be absent; and molars that were absent of the second molar. Using these groups as a comparison, the analysis was conducted. Those Including second and third molar periapical lesions, root fragments and radiographically proven cysts and tumors in these teeth were excluded from the study, as were those showing Fractures and all types of mesioangular impaction as well as vertical and distoangular impactions.

Statistical analysis

A t-test or x2-analysis was used to calculate the rate of acute inflammation in teeth and the age of patients, and then a The data was analyzed using the Student's t-test.

Table 1- Molars with incompletely impacted horizontal surfaces are prone to acute inflammation (AI).

Age (y)	Sex	Contact with molar		No contact with molar		Solitary molar		Total	
		with Acute Inflammation	without Acute Inflammation						
40–49	Male	6	24	2	4	2	2	10	30
	Femnale	2	30	0	2	0	0	2	32
50–59	Male	6	10	0	4	2	4	8	18
	Femnale	0	6	0	2	2	0	2	8
60–69	Male	4	4	0	0	4	2	8	6
	Femnale	0	2	0	0	0	4	0	6
70≤	Male	0	2	0	0	10	2	10	4
	Femnale	0	0	0	2	2	2	2	4
Total	Male	16	40	2	8	9	10	36	58
	Femnale	2	38	0	6	4	6	6	50

RESULTS

Ninety-four men's teeth were studied and fifty-six women's teeth were studied. There was a mean age of 56.90 years for men (range: 40–80) and 50.28 years for women (range: 40–72). [9] There were no significant differences between women and men. Third molars in contact with second molars are compared with solitary third molars in the presence of first and second molars (Table 1), 16 teeth Ten impacted third molars in men and

six in women were not in contact with their second molars because they were horizontally impacted were excluded from the present study. 40 men averaged 58.11 years old (range 40–80 years), and 50 women averaged 51.41 years old (range 40–72 years). (p 0.05) There was a Men and women have significant differences. There were no bilaterally acute inflammations in any of the patients.[10]

There were 34 teeth in both sexes with acute inflammation, including eight that were in Men lost their

second and first molars, and nine experienced solitary loss of the second molar and both first and second molars. There were 41.6% of teeth that could not be connected to molars in men. [11] Out of 50 teeth in women, we found 6 teeth that had acute inflammation, 2 that had lost their Two molars or their first and second molars, and 4 that were lost by the second molar or both. (p 0.05) Men and women showed significant differences.

On one hand, among 96 subjects With third molars in contact with second molars, (comprising 56 men's teeth and 40 women's teeth), the mean age was 51.43 ± 8.63 years, ranging from 40 to 72 years. On the other hand, 38 subjects The mean age of the teeth without second molars (28 in men and 10 in women) ranged from 50 to 80 years old. [12] They were significantly different (p 0.0001). The 96 third molars found in both men and women with exposure to second molars showed nine instances of acute inflammation, while the The result showed 22 for 38 molars that had lost the first and/or second molars instances each. [13] In third molars with second molars, there was a significant difference (p 0.01) compared to third molars without Two molars or one molar and a second molar. In addition, nine third molars with acute inflammation in The second molars are in contact with each other could be found to have formed between 42 and 66 years old, and 22 solitary molars could have formed between 50 and 80 years old. [14] Both groups showed significant differences (p 0.01).

DISCUSSION

An elderly patient with a lost second molar or a Having lost your first molar and second molar had a higher incidence of acute inflammation in Second molars contact third molars. Due to the width of the lost teeth's crowns, There is probably a third molar in the horizontal partially impacted position. [15] Differences between the two groups were significant the age of the population with second molar loss or second and first molar loss and that of the population with Compared to women, men had significantly higher levels of third molars in contact with second molars, and their ages were significantly older; whereas, women had significantly lower levels of pericoronitis is more common among females aged [16] The risk of acute inflammation increased with age for solitary horizontal incompletely impacted molars. There is a plausible explanation why acute inflammation is so prevalent in elderly people: the crown⁹ does not have a periodontium, and it is easy to form, resulting either from natural bone resorption as one ages or from losing the second and first molars. [17] There is a Inflammation is more likely to occur acutely in older patients due to denser bone tissue, and acute inflammation may develop or persist due to increased pain tolerance. [18] According to our previous report, Third molars completely impacted in patients 45 years and older may develop purulent inflammation when they don't contact an adjacent tooth.

When impacted third molars are mandibular horizontally without adjacent teeth, they are more likely to experience acute inflammation than when adjacent teeth are present. An elderly individual with an incompletely impacted mandibular third molar may be more likely to experience acute inflammation when their adjacent tooth has been lost. Aging may influence this relationship. The incidence of In an edentulous individual, the third molars are completely impacted jaws is low due to As we age, our alveolar bones resorb,[19-20]. As a result of the removal of It is composed of two molars, a second and a third that is incompletely impacted might need to be removed. Alveolar bone resorption is influenced by factors other than age, such as gender [21], and it is more prominent in women over 60 years of age. After tooth extraction, the alveolar ridge resorbs more rapidly in women than men, which is likely due to time after extraction. [22] A large number of edentulous patients, especially those in the earliest stages, will experience residual ridge resorption on their mandibular side. A panoramic radiograph is usually used to measure this type of bone resorption. There was recently evidence that the Older men had stable values for mandibular cortical width. Ascertain whether the second molar removal will expose a completely impacted third molar, it is necessary to infer bone resorption in both vertical length as well as horizontal width of the alveolar bone after tooth removal. [23]

It is important to Considering the fact that men had higher acute inflammation rates in third molars than women, consider whether gender differences in molars with and without second or second and first molars have an effect on local factors, despite their significantly higher means of age. In the north of England, elderly It may be due to the traditional perception in the provinces that men do not need to visit the dentist don't visit the dentist as much as women. In addition to the cultural difference, this also suggests a cultural gender difference with implications for health care provision in England and Japan. In an elderly institutionalized population, Denture wearers were more likely to be women than men, due to women's association with oral health and their perception of attractiveness [24], as demonstrated by the findings. While oral hygiene practices have not been shown to be responsible for acute inflammation,¹ Factors local to the crown, such as food impacts and difficulty brushing the crown may contribute to acute inflammation. An insufficient level of dental An incompletely impacted molar that lies far away from the first molar or premolar can cause hygiene issues and acute inflammation. In innate as well as adaptive immune responses, local immunity may The host defends itself in a variety of ways to selectively control points between different locations. TLR2+ cells (Toll-like receptor 2+) are infiltrated heavily by gingiva in Muthukuru and colleagues²⁶, and TLR4(+) cells are more abundant in Erciyas and colleagues' study on chronic periodontitis ²⁷ found that chronic periodontitis patients

had poor local immune responses. [25] The adjacent tooth may provide protection to the third molar from local immunity, but further research is needed to determine this.

For reasons of tooth loss, and to confirm the third molar is indeed the third molar in the elderly, it has only been studied with first and second molars present, it has been studied with first and second molars present. [26-27] The loss of third molars due to tooth decay or periodontitis does not always indicate problems, and there is limited information about third molars in the elderly. However, The third molar was identified by horizontal impaction even though second or first molar loss should be interpreted cautiously, Second or first molars that are horizontally impacted are highly uncommon. As a result of small sample sizes, this study has limitations. It is also necessary in many cases to review follow-up data.

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CONCLUSION

When the adjacent tooth is lost, patients may suffer from deterioration of An incompletely impacted third molar can negatively affect a person's quality of life. As patients age, acute inflammation increases with bone resorption, especially in Second molars in both first and second molars; second molars without second molars. A patient who has had an adjacent tooth removed is more likely to develop acute inflammation. While removing the second molar, it is recommended to remove the horizontally impacted third molar as well. In addition to diagnosing and treating horizontally A second molar with decay and an impacted third molar, this information can also be useful for treating solitary horizontal incompletely impacted molars.

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